

On page 2 of the Final Office Action, the Examiner has set forth a response to Applicants previous arguments. Applicant disagrees with the Examiner's position.

The Examiner has rejected the claims of record under both 35 U.S.C. §102 as well as 35 U.S.C. §103 relying upon the patent to Smith, namely U.S. Patent No. 5,533,136. This patent has been reviewed by the Applicant. Applicant believes that the Smith patent discloses a feed-forward system in which the control circuitry has no connection to the output of the attenuator in Smith. In this regard, reference is made to the attenuators 80 in Smith and note that there is no output signal taken from either of these attenuators. On the other hand, in accordance with one embodiment of the present invention and with reference to Fig. 2 thereof, it is noted that there is an output taken at line 270 from the attenuator 210. This forms a type of feedback. Note signal FB at line 280 coupling from the signal processing circuitry 220 to the comparator circuitry 230. Such an arrangement is not at all shown in the Smith patent.

Regarding the claims, the claims recite "circuitry, that receives the second audio signal, for providing an output signal in response to the amplitude of the second signal." This corresponds, in one embodiment, to circuitry 220 which is responsive to the output of the illustrated attenuator 210. The attenuator 210 corresponds, in one embodiment, to the "circuitry that receives the first audio signal and provides the second audio signal. Again, by contrast, Smith discloses only a feed-forward system in which the control circuitry has no connection to the output of the attenuator.

Claim 1 recites circuitry that controls the amplitude of a second audio signal, the circuitry that receives a first audio signal and provides the second audio signal. The said mentioned circuitry includes circuitry receiving the second audio signal (i.e., the output) and provides a (second) control signal, and control circuitry which receives the first audio signal and provides the second audio signal under control of the second signal. This is explicitly a feedback configuration. By contrast, if the Examiner's interpretation that elements 50a-50d and 60 of Smith provide an output signal, there is then no "circuitry that receives the first audio signal and that is controlled in response to the second control signal for providing the second audio signal". Further, there is no "circuitry for controlling the amplitude of a second audio signal in response to a first control signal" as claim 1 recites.

With reference to the Office Action and the Examiner's response to the previous arguments, the Examiner has taken the position that the claims as presently standing, do not specify where this second signal originates. Applicant disagrees. The claims on file do specify where the second signal originates. This is namely from the output of "circuitry, that receives the first audio signal and that is controlled in response to the second control signal".

Accordingly, it is believed that the rejection based upon the Smith patent is improper and that this rejection should be withdrawn.

The Examiner has also set forth a rejection of only claims 1, 17, 22 and 23 under 35 U.S.C. §102(b) as being anticipated by the Joseph et al. patent, U.S. Patent No. 5,363,147. With regard to this rejection, it is noted that the Joseph et al. reference uses the series connection of a high pass filter and a peak detector in concert with a ripple filter to control the reproduced volume of an audio signal according to the peak amplitude of the signal. This has the disadvantage of distorting the signals because controlling an audio amplifier independent of the peak amplitude merely results in output distortion. The net result of Joseph would be to compress the signal applied to the audio amplifier 8 both in volume range and frequency range. By contrast, embodiments of the present invention provide an input to the integrating comparator 230 which is dependent on the amplitude of the signal at the output terminal 260. By sensing the amplitude as the controlled parameter, it is the actual perceived volume of the output which is controlled.

Also, it is noted that regarding the Joseph et al. reference, there is patentably distinguishing language already in the claims. Particularly, Joseph et al. does not teach the series connection of an amplitude limiting circuit feeding an output (second audio) signal to a volume control circuit. Neither elements 8 nor 9 of Joseph et al. teach any type of volume control.

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee

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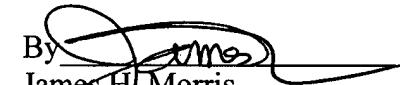
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occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to deposit account No. 23/2825.

Respectfully submitted,

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